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hope, were borne by Mr. Stearns with the most submissive spirit, and the final sentence was received with Christian heroism. The book which records his trials, and labors, and virtues, will be read with pleasure and profit, not only by the sect of Christians with whom he was particularly united, but by all to whom purity of mind, and refinement of intellect are dear.

2. — *Second Report on the Geology of the State of Maine*. By CHARLES T. JACKSON, M. D., Member of the Geological Society of France ; of the Imperial Mineralogical Society, St. Petersburg ; of the Boston Society of Natural History, &c. &c. Augusta, (Me.) : Luther Severance. 8vo. pp. 168.

DR. JACKSON'S first Report on the geology of Maine was noticed in a former Number of our Journal.* We are happy to meet him again in a field in which he is eminently qualified to labor. We congratulate him and the States to which he is devoting his services, on the success which attends his labors in that most interesting science, which he has so much contributed to advance and adorn.

He resumed the survey early in June of 1837, assisted by Mr. James T. Hodge, on the part of Massachusetts, — which State, it will be recollected, made provisions for a geological examination of her public lands in Maine, — and by Mr. William C. Larrabee for the latter State; and prosecuted it through the season, with zeal, and, as the Report before us shows, with great ability and success. Mr. Hodge, a young gentleman of high promise as a geologist and chemist, who was employed as an assistant the preceding year, was commissioned by Dr. Jackson to make a tour through the State wild lands to the river St. Lawrence. Having set out from Oldtown in a *bâteau*, he proceeded up the Penobscot to Moosehead Lake, and thence through the long chain of lakes which supply the Allagash stream, and down that river to the St. John ; whence he ascended the Madawaska, crossed into Canada, and then returned by the St. François and down the St. John River to Woodstock. This route was one of danger and hardship, as well as of interest. While Mr. Hodge was engaged in this expedition, Dr. Jackson and Mr. Larrabee devoted themselves to an examination of the settled portions of the State, and subsequently Dr. Jackson spent two months on the wild lands belonging to the two States in common.

* Vol. XLV. pp. 240 — 243.

Embracing a wide extent of territory, based upon so many different rock formations, Maine possesses great mineral wealth, so far at least as the more useful minerals are concerned. It abounds in granite of a most excellent quality, of every variety of color and shade required for architecture; and it enjoys extraordinary facilities, afforded by the numerous bays, deep inlets, and estuaries of large navigable rivers, for the ready transportation of the stone to market. Consequently, the granite of Maine is destined to find a market along the whole Atlantic coast of the United States, and in the West Indies. It is already shipped in great quantities to New York, as well as Boston, and is beginning to be carried to Havana. Many of the quarries, says the Report, can furnish regular dimension stones, of excellent granite, on board ship, for \$ 1,12 per ton, and the expense of transportation to New York is rarely more than \$2,50 per ton. There are few cities where this will not sell for at least \$ 7 per ton; and for columns, and other stones of large dimensions, 90 cents per cubic foot has been paid.

Limestone and marble are also found in Maine, in exhaustless abundance. Of the numerous quarries of limestone beginning to be wrought, those of Thomaston are perhaps the most celebrated. The Report estimates, that there are "no less than fourteen million dollars' worth of limestone within twenty feet of the surface, in Thomaston"; and states, that already, while but a trifling proportion of the stone is exported, nearly half a million of dollars are annually realized from the sales of lime."

Roofing slate, as we also observed in our notice of Dr. Jackson's former Report, can be furnished by Maine in sufficient abundance, to supply, to any conceivable demand, the whole United States. Bangor, in Wales, has hitherto enjoyed the exclusive privilege of supplying the world with roofing-slates; but it is certain, according to the Report, that she will find a powerful rival in the Bangor of our sister State. The slate of Maine is said to be equal to the best Welsh slates, and can be furnished in Boston at \$ 11 per ton, while the latter sell at \$ 27 per ton.

"We observed," says the Report, "that most of the houses in Bangor, and other cities of the State, are covered with Welsh slates, that were first imported into New York or Boston, and there purchased and transported to Maine. A few years hence this will appear equally absurd with the fact, that our fathers used to send to Wales for grave-stones, and the good Dutchmen of New York to Holland for brick. Indeed, we need not go so far from home; for, less than twenty years ago, I am told, that it was customary to send from Hallowell to Quincy for granite or sienite, to make underpinnings to the houses in that town, and to this day Quincy supplies Maine with tombstones!"—p. 117.

On Deer Isle, occurs an enormous mass of serpentine, which has been thrown up through the granite. This rock, says the Report, is identical with the highly prized marble, known under the name of *verd-antique*. It is of a deep olive green color, with many lines of asbestos and spots of yellow diallage.

Hone slate, or novaculite, we learn from the survey, useful for oilstones, is extremely abundant in Maine, equal in quality with that brought from the Mediterranean, known under the name of Turkey oilstone, which sells in Boston for fifty cents a pound.

Felspar, suitable for the manufacture of fine porcelain or china ware, is abundant in Maine, and is stated to be much more pure than the kind used at the porcelain works of Sèvres, in France.

Horn-stone, which may be used for flints, occurs in various parts of the State.

"The largest mass of this stone known in the world, is Mount Kineo, upon the Moosehead Lake, which appears to be entirely composed of it, and rises seven hundred feet above the lake level. This variety of horn-stone I have seen in every part of New England, in the form of Indian arrow-heads, hatchets, chisels, &c., which were probably obtained from this mountain by the aboriginal inhabitants of the country. It breaks with a sharp cutting edge, and appears well adapted to the uses for which it was employed." — p. 125.

Valuable ores of iron are found in different parts of Maine, in great abundance and extent. As a specimen of these, we would refer to the one discovered by Dr. Jackson at Woodstock, which we noted in examining his Report of the preceding year. This one, which is the red hæmatite, he has since analyzed, and found to contain 53 per cent. of iron. A similar bed has been discovered on the Aroostook river, thirty-six feet wide, and of immense and unknown length. This latter ore, in the opinion of Dr. Jackson, will yield iron equal in quality to the best Swedish, and capable of being wrought into the finest steel.

Agricultural geology, a subject which was commenced in the preceding Report, has received a very great share of attention in the one before us. Dr. Jackson is, we believe, the first geologist in this country, who, in making a geological survey, has given any considerable attention to this subject, so important to a correct knowledge of the science of agriculture. He has made an extensive collection of soils, illustrating their geological origin, their distribution, chemical composition, and capabilities. This is a subject of much practical importance, and one which should never be overlooked in an agricultural country.

Many facts highly interesting in a scientific point of view are given in the Report, two or three of which only we have room to allude to. Among these, we would instance the diluvial grooves, noted on pages 28, 50, 59, 65, 91, 95, and 96, observed on the surfaces of rocks in different parts of the State, all running in a direction nearly parallel, from northwest to southeast; the interesting tertiary formations, mentioned on pages 24–27, 76, 95, and 98; the remarkable trap-dikes, noticed on pages 55, 71, 72, 87, &c.; and also the discovery of bituminous coal, detected, as it were, in the very process of formation. This last mentioned discovery is one of so much importance in explaining the origin of coal, that we cannot forbear quoting the whole paragraph relating to it.

“In Limerick, we examined the peat bogs on the estate of Mr. Ebenezer Adams, where a very remarkable substance is found resembling exactly the Cannel coal. It is found at the depth of three feet from the surface of the peat bog, amid the remains of rotten logs and beaver sticks, showing that it belongs to the recent epoch. The peat is twenty feet deep, and rests upon white siliceous sand. This recent coal was found while digging a ditch to drain a portion of the bog, for the sake of obtaining peat as a manure. About a peck of it was saved, and served to supply us with specimens. On examination, I found, that it was formed from the bark of some tree allied to the American fir, the structure of which may be readily discovered by polishing sections of the coal, so that they may be examined by the microscope. It contains, in 100 grains, bitumen 72, carbon 21, ox. iron, 4, silica 1, ox. manganese 2.

“This substance is a true bituminous coal, containing more bitumen than is found in any other coal known. I suppose it to have been formed by the chemical changes supervening upon fir-balsam, during its long immersion in the humid peat.

“The discovery of the recent formation of bituminous coal, cuts the gordian knot which geologists and chemists are endeavouring to unravel, and shows that the process is still going on.”— pp. 80, 81.

Dr. Jackson has resumed the survey this season, and we shall look with interest for the result of his labors. The geological survey of Maine, completed in the masterly manner in which it has thus far been prosecuted, will be a monument to the honor of science, and must confer lasting benefits on the States under whose authority it is accomplished.

3.— *Romanze*. 1838. Cambridge. Folsom, Wells, e Thurston, Stampatori dell' Università. 18mo. pp. 47.

ITALIAN verses from a Yankee press, — and not only published, but actually produced, among us! Tender exotics these, for our bleak atmosphere; and their appearance must